

penicillin, streptomycin, vancomycin, bacitracin, polymyxin, neomycin, chloramphenicol, chlortetracycline, ciprofloxacin, tobramycin, erythromycin, genamicin, gramicidin, oxytetracycline, norfloxacin.

43. The composition of claim 41, wherein the second antibiotic is in the form of either a salt or an ester.

44. The composition of claim 38, further comprising lysozyme.

45. A composition of claim 38, further comprising a pharmaceutically acceptable carrier, wherein the composition is a pharmaceutical composition.

46. A kit comprising the composition of claim 45 and an instructional material which describes use of the composition to inhibit growth of a microorganism.

47. The kit of claim 46, wherein the instructional material describes use of the composition to kill the microorganism.

48. The kit of claim 46, wherein the composition is in the form of a wound dressing.

49. An animal feed comprising the composition of claim 38.

50. A foodstuff supplemented with the composition of claim 38.

51. The foodstuff of claim 50, selected from the group consisting of a meat, a fish, a milk, a cheese, a bread, a crop, a beer, and a wine.

52. A personal care product supplemented with the composition of claim 38.

53. The personal care product of claim 52, selected from the group consisting of a cream, a lotion, a deodorant, a lipstick, a toothpaste, a tooth powder, a dental floss, a mouthwash, a sanitary napkin, a vaginal tampon, and an insole.

54. A medical device coated with the composition of claim 38.

55. The medical device of claim 54, selected from the group consisting of a surgical implant, a catheter, an intravenous pump, a wound dressing, a plaster, a sanitary napkin, and a vaginal tampon.

56. The medical device of claim 54, wherein the device is a titanium implant having a portion of its surface chemically modified to comprise negatively charged groups and having histone H1 bound therewith.

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cont.

57. A wrap for perishable food, the wrap comprising the composition of claim 38 and at least one of a synthetic polymer and a polymer containing a biological macromolecule.

58. The wrap of claim 57, wherein the histone H1 is coupled to at least one surface of the wrap.

59. A method of inhibiting growth of a microorganism, the method comprising contacting the microorganism with the composition of claim 38.

60. The method of claim 59, wherein the microorganism is resistant to at least one antibiotic.

61. The method of claim 59, wherein the microorganism is an animal pathogen.

62. The method of claim 61, wherein the microorganism is a human pathogen.

63. The method of claim 61, wherein the microorganism is a bacterium.

64. The method of claim 63, wherein the bacterium is selected from the group consisting of *Escherichia coli*, *Klebsiella pneumoniae*, a *Shigella* species, *Serratia marcescens*, *Bacillus cereus*, *Bacillus subtilis*, *Pseudomonas aeruginosa*, *Proteus morgani*, *Staphylococcus albus*, *Salmonella typhimurium*, *Salmonella enteritidis*, *Proteus mirabilis*, and *Bacillus megaterium*.

65. A method of treating a microbial infection of an organism, the method comprising administering the composition of claim 38 to the organism.

Alt. cont.

66. The method of claim 65, wherein the organism is a plant.

67. The method of claim 65, wherein the organism is an animal.

68. The method of claim 67, wherein the animal is a human.

69. The method of claim 67, wherein the composition is administered to the animal either by injection or by infusion into a tissue of the animal.

70. The method of claim 69, wherein the tissue is blood.

71. The method of claim 65, wherein the composition is administered to the organism in the form of a wound dressing.

72. The method of claim 71, wherein the wound dressing is selected from the group consisting of a crème, a gel, an absorbent material, and a physiologically degradable material.

73. A method of preventing a microbial infection of an animal, the method comprising administering the composition of claim 38 to the animal.

74. A method of making a vaccine against a microorganism, the method comprising combining the microorganism with the composition of claim 38, whereby the microorganism is attenuated or killed to yield the vaccine.

75. A method of immunizing an animal against a microorganism, the method comprising administering to the animal a vaccine made by combining the microorganism with the composition of claim 38.

76. A method of coating a medical device with the composition of claim 38, the method comprising covalently linking a coupling group to the surface of the device and contacting the covalently-linked coupling group with histone H1.

77. The method of claim 76, wherein the coupling group binds histone H1 either covalently or electrostatically.

78. The method of claim 76, wherein the medical device is selected from the group consisting of a surgical implant, a catheter, an intravenous pump, a wound dressing, a plaster, a sanitary napkin, and a vaginal tampon.

79. A method of coating a medical device with the composition of claim 38, the method comprising coating the surface of the device with a composition comprising the histone H1 and at least one of a synthetic polymer and a polymer containing a biological macromolecule.

80. A method of coating a food wrap with the composition of claim 38, the method comprising covalently linking a coupling group to the surface of the wrap and contacting the covalently-linked coupling group with histone H1.

81. A method of improving the growth of a non-human animal, the method comprising feeding the animal feed of claim 49 to the animal.

AI 1, cont.
82. A method of inactivating histone H1 protein that has been administered to an animal, the method comprising administering heparin to the animal in an amount effective to inactivate the histone H1 protein.

83. The method of claim 82, wherein the animal is a human.

84. A method of inactivating heparin in an animal, the method comprising administering to the animal a eukaryotic histone selected from the group consisting of H1, H2A, H2B, H2A:H2B dimer, H3, and H4 in an amount effective to inactivate heparin. --

REMARKS

Claims 38-84 are pending following entry of this Preliminary Amendment.

Claims 38, 82, and 84 are the only independent claims. The claims have been amended to place them in more typical U.S. claim format. The amended claims are supported by those originally present in the priority application.